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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/943,418      | 08/31/2001  | Takashi Yamazaki     | 50395-110           | 7820             |

7590 06/11/2004  
McDermott, Will & Emery  
600 13th Street N.W.  
Washington, DC 20005-3096

EXAMINER

HUG, ERIC J

ART UNIT PAPER NUMBER

1731

DATE MAILED: 06/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/943,418

Applicant(s)

YAMAZAKI ET AL.

Examiner

Eric Hug

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☒ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuchiya et al (US 5,114,338). Tsuchiya discloses a furnace for heating a glass preform for an optical fiber having a heater and a carbon muffle tube installed inside the heater to separate the heater from the heating atmosphere (within the muffle tube). The tube is composed on interconnecting parts (see figures). In the embodiment of Figure 4 (see also column 4, lines 17-27), the muffle tube has a double wall structure that permits the flow of an inert gas between the two walls. In this embodiment, the heater is disposed outside the outer wall of the double wall structure.
2. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohga et al (US 5,259,856). Ohga discloses a furnace for producing a glass preform for an optical fiber having a carbon muffle tube body composed of detachably connected parts. In the particular embodiment of Figure 6 (see also Example 2 in column 2, line 56), the muffle tube has a double tube structure that allows the passage of an inert gas (helium) between the walls of the double tube. A heater for the furnace is disposed outside the outer wall of the double tube structure.

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3. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al (JP 62-083418). Suzuki discloses a muffle furnace for heating a metal. The furnace has a double wall muffle structure. The metal to be heated is placed in the heating area within the inner wall. Argon gas is flowed through the cylindrical space between the two walls. The heating element of the furnace is placed outside the double wall structure.

The furnace of Suzuki is disclosed for heating metal rather than for the claimed intended use of “dehydrating and consolidating an optical fiber preform”. However, the claimed intended use does not distinguish the claimed apparatus from that disclosed by Suzuki.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yoshimura (EP 0 386 756) discloses a furnace for drawing an optical fiber having at least a portion of the muffle comprising two walls and having an inert purging gas supplied to the space between the two walls.

Taru et al (EP 1 069 086) discloses a furnace for drawing an optical fiber comprising an inner tube within the muffle tube and an inert gas blowing between the inner tube and the muffle tube.

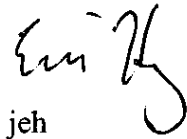
Reed (US 3,626,154) discloses a transparent furnace having a cylindrical heating chamber surrounded by a concentric Pyrex tube, and having a heat source disposed in the annular space between the chamber and the Pyrex tube.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is 703 308-1980. The examiner can normally be reached on Monday through Friday, 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 703 308-1164. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0651.

  
jeh

  
STEVEN P. GRIFFIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700